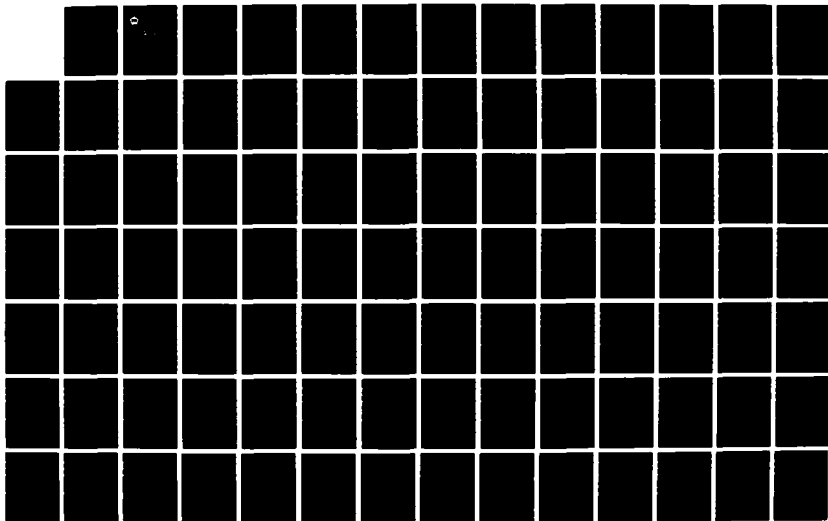


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No. 71

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20. ABSTRACT  This is the Soviet Laser Bibliography for May-June 1984, and is No. 71 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; adaptive optics; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.		

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## INTRODUCTION

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is May-June 1984, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Soviet Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library.

We are now producing the entire bibliography on computer. To make our bibliography compatible with other data bases, we have converted the source abbreviations from our previous practice of those used in the Soviet Union to the letter codens generally used in our own government. Likewise, we have converted the affiliations designations from numbers to letter codens. The authors' affiliations are indicated in parentheses after the authors' names in the text. Empty parentheses indicate the affiliation was not given. A source abbreviations list, authors' affiliations list, and author index are included in the back of the bibliography.

# SOVIET LASER BIBLIOGRAPHY, MAY - JUNE 1984

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#### IV. SOURCE ABBREVIATIONS

(Note: CTC = cover-to-cover translation available)

ABFZA	Analele Universitatii Bucuresti. Fizica
AKZHA	Akusticheskiy zhurnal (CTC)
APYCA	Acta physica et chemica. Szeged
ATPLB	Acta physica polonica. Series A
AVMEB	Avtometriya (CTC)
BWATA	Biuletyn Wojskowej akademii technicznej imię Jaroslawa Dabrowskiego
CMNTKVIP	Mezhotraslevaya nauchno-tehnicheskaya konferentsiya: Vzaimodeystviye izlucheniya plazmennyykh i elektronnykh potokov s veshchestvom
CRNTShSL	Respublikanskaya nauchno-tehnicheskaya shkola-seminar: Lazernoye opticheskoye i spektral'noye priborostroyeniye
CVKBNFPr	Vsesoyuznaya konferentsiya: Besserebryanyye i neobychnyye fotograficheskiye protsessy
CVKOLaze	Vsesoyuznaya konferentsiya: Optika lazerov
CVShSRMS	Vsesoyuznaya shkola-simpozium po rasprostraneniyu millimetrovykh i submillimetrovykh voln v atmosfere
CVSNMPSO	Vsesoyuznyy seminar: Nitridy: metody polucheniya, svoystva i oblasti primeneniya
CVSPMIVS	Vsesoyuznyy simpozium po problemam modulyarnyykh informatsionno-vychislitel'nykh sistem
CVSRVEle	Vsesoyuznyy seminar po relyativistskoy vysokochastotnoy elektronike
CVSUZCha	Vsesoyuznoye soveshchaniye po uskoritelyam zaryazhennykh chastits
DANAA	Akademiya nauk Armyanskoy SSR. Doklady
DANKA	Akademiya nauk SSSR. Doklady (CTC)
DANTA	Akademiya nauk Tadzhikskoy SSR. Doklady

DANUA	Akademiya nauk Uzbekskoy SSR. Doklady
DERUD	Deponirovannyye nauchnyye raboty (formerly: Deponirovannyye rukopisi. Bibliograficheskiy ukazatel'. Yestyesvennyye i tochnyye nauki, tekhnika)
EKNTB	Elektronika (Warsaw)
ELPBA	Elektropromishlennost i priborostroene
EOBMA	Elektronnaya obrabotka materialov (CTC)
EXPPA	Eksperimentelle Technik der Physik
FGVZA	Fizika gorennya i vzryva (CTC)
FIPLD	Fizika plazmy (Moskva, AN SSSR) (CTC)
FIZSA	Fizika v shkole
FKOMA	Fizika i khimiya obrabotki materialov
FKSTD	Fizika i khimiya stekla (CTC)
FMMTA	Fizika metallov i metallovedeniye (CTC)
FNMKA	Finomechanika, mikrotehnika (Budapest)
FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
GZKGA	Geodeziya i kartografiya (CTC)
HIRAA	Hiradastechnika (Budapest)
IANFA	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC)
IATOA	Akademiya nauk Tadzhikskoy SSR. Izvestiya. Otdeleniye fiziko-matematicheskikh i geologo-khimicheskikh nauk
IFAOA	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana (CTC)
IMZGA	Akademiya nauk SSSR. Izvestiya. Mekhaniki zhidkostey i gazov (CTC)
IVNMA	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy (CTC)

IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUFA	Izvestiya vysshikh uchebnykh zavedeniy. Fizika (CTC)
IVUSA	Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye
IVUZB	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVYRA	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC)
IZNMA	Akademiya nauk SSSR. Izvestiya. Metally (CTC)
IZTEA	Izmeritel'naya tekhnika (CTC)
JMKOA	Jemna mekhanika a optika
KHVKA	Khimiya vysokikh temperatur (CTC)
KNKTA	Kinetika i kataliz (CTC)
KNLTA	Knizhnaya letopis'
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)
KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
LFSBA	Litovskiy fizicheskii sbornik (CTC)
LZFTA	Akademiya nauk Latviyskoy SSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk
MKETA	Mikroelektronika (CTC)
MKMAD	Mekhanika kompozitnykh materialov (Riga)
MTRLB	Metrologiya
NAUZA	Nauka i zhizn'
OIPOB	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki (now in two separate journals: OTIZD and POTZD)

OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)
OPSPA	Optika i spektroskopiya (CTC)
OTIZD	Otkrytiya, izobreteniya (formerly included in OIPOB)
POLIA	Polimery tvorzywa wieloczasteczkowe
POTZD	Promyshlennyye obraztsy, tovarnyye znaki (formerly included in OIPOB)
PPCNB	Problemy prochnosti (CTC)
PRIRA	Priroda
PRTEA	Pribory i tekhnika eksperimenta (CTC)
PSSAB	Physica status solidi (A). Applied Research (GDR)
PSSBB	Physica status solidi (B). Basic Research (GDR)
PZTFD	Zhurnal tekhnicheskoy fiziki. Pis'ma (CTC)
PZTKA	Przeglad telekomunikacyjny
RAELA	Radiotekhnika i elektronika (journal, Moskva) (CTC)
RATEA	Radiotekhnika (journal, Moskva) (CTC)
RZFZA	Referativnyy zhurnal. Fizika
RZRAB	Referativnyy zhurnal. Radiotekhnika
SAKNA	Akademiya nauk Gruzinskoy SSR. Soobshcheniya
STKRA	Steklo i keramika (CTC)
SUFGA	Godishnik na Sofiiskaya universitet. Fizicheski fakultet
SVETA	Svetotekhnika
TEOPA	Tekhnologiya i organizatsiya proizvodstva
TKHMA	Tekhnika molodezhi
TKTEA	Tekhnika kino i televideniya

TVOOB	Tekhnika i vooruzheniye (CTC)
TVYTA	Teplofizika vysokikh temperatur (CTC)
UFNAA	Uspekhi fizicheskikh nauk (CTC)
UFZHA	Ukrainskiy fizicheskii zhurnal (CTC)
USKHA	Uspekhi khimii (CTC)
VBMFA	Belorusskiy universitet. Vestnik. Seriya 1. Matematika, fizika, mekhanika
VBSFA	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
ZAKHA	Zhurnal analiticheskoy khimii (CTC)
ZETFA	Zhurnal eksperimental'noy i teoreticheskoy fiziki (CTC)
ZFKHA	Zhurnal fizicheskoy khimii (CTC)
ZFPRA	Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma (CTC)
ZNOKA	Zhurnal neorganicheskoy khimii (CTC)
ZNPPA	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii (CTC)
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZRBEA	Zarubezhnaya radioelektronika
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)

## V. AUTHOR AFFILIATIONS

### AKIN

Akusticheskiy institut AN SSSR  
Acoustics Institute, Academy of Sciences USSR

### Astrosovet

Astronomicheskiy sovet AN SSSR  
Astronomy Council, Academy of Sciences USSR, Moscow

### AzTI

Azerbaydzhanskiy tekhnologicheskiy institut  
Azerbaijani Technological Institute, Kirovabad

### BGU

Belorusskiy gos universitet  
Belorussian State University

### BIYeN

Buryatskiy institut yestestvennykh nauk SOAN SSSR  
Buryat Institute of Natural Sciences, Siberian Branch of the  
Academy of Sciences USSR

### BPI

Belorusskiy politekhnicheskiy institut  
Belorussian Polytechnical Institute, Minsk

### ChelTI

Chelyabinskiy tekhnologicheskiy institut  
Chelyabinsk Technological Institute

### CherGPI

Cherpovetskiy gos pedagogicheskiy institut  
Cherpovets State Pedagogical Institute

### ChGU

Chernovitskiy gosudarstvennyy universitet  
Chernovitsy State University

### DGU

Dnepropetrovskiy gosudarstvennyy universitet  
Dnepropetrovsk State University

### FIAN

Fizicheskiy institut im Lebedeva AN SSSR  
Physics Institute imeni Lebedev, Academy of Sciences  
USSR, Moscow

### FMIANUkr

Fiziko-mekhanicheskiy institut AN Ukr SSR  
Physical Mechanical Institute, Academy of Sciences Ukrainian  
SSR, L'vov

### FTI

Fiziko-tekhnicheskiy institut im Ioffe AN SSSR  
Physicotechnical Institute im Ioffe, Academy of  
Sciences USSR, Leningrad

### GEOKhI

Institut geokhimii i analiticheskoy khimii

Institute of Geochemistry and Analytical Chemistry  
imeni Vernadskiy, Academy of Sciences USSR, Moscow



GGU  
Gor'kovskiy gos universitet  
Gor'kov State University

GOI  
Gosudarstvennyy opticheskiy institut im Vavilova  
State Optical Institute imeni Vavilov, Leningrad

GPI  
Gor'kovskiy politekhnicheskiy institut.  
Gor'kiy Polytechnical Institute.

IAE  
Institut atomnoy energii im Kurchatova  
Institute of Atomic Energy imeni Kurchatov, Moscow

IEANBel  
Institut elektroniki AN BSSR  
Institute of Electronics, Academy of Sciences  
Belorussian SSR, Minsk

IEANUz  
Institut elektroniki AN UzSSR  
Institute of Electronics, Academy of Sciences  
Uzbek SSR, Tashkent

IEM  
Institut eksperimental'noy meteorologii  
Institute of Experimental meteorology, Obninsk

IFANAz  
Institut fiziki AN AzSSR  
Institute of Physics, Academy of Sciences  
Azerbaijdzhan SSR

IFANB  
Institut fiziki AN BSSR  
Institute of Physics, Academy of Sciences  
Belorussian SSR, Minsk

IFANEst  
Institut fiziki AN EstSSR  
Institute of Physics, Academy of Sciences Estonian SSR

IFANLi  
Institut fiziki AN LitSSR  
Institute of Physics, Academy of Sciences Lithuanian SSR

IFANUK  
Institut fiziki AN UkrSSR  
Institute of Physics, Academy of Sciences Ukrainian SSR,  
Kiev

IFI  
Institut fizicheskikh issledovaniy AN ArmSSR  
Institute of Physics Research, Academy of Sciences  
Armenian SSR

IFP  
Institut fizicheskikh problem AN SSSR  
Institute of Problems of Physics, Academy of  
Sciences USSR

IFPV  
Institut fiziki poluprovodnikov AN LitSSR  
Institute of Semiconductor Physics, Siberian Branch  
Academy of Sciences USSR, Novosibirsk

IFSOAN

Institut fiziki SOAN  
Institute of Physics, Siberian Branch Academy of  
Sciences USSR

IFTT

Institut fiziki tverdogo tela AN SSSR  
Institute of Solid State Physics, Academy of  
Sciences USSR, Chernogolovka

IGMANGruz

Institut gornoy mekhaniki AN GruzSSR  
Institute of Mining Mechanics, Academy of Sciences  
Georgian SSR, Tbilisi

IIYeIT

Institut istorii yestestvoznaniya i tekhniki AN SSSR  
Institute of History of natural Science and Technology,  
Academy of Sciences USSR, Moscow

IKAN

Institut kristallografii AN SSSR  
Institute of Crystallography, Academy of Sciences  
USSR, Moscow

IKatAN

Institut kataliza SOAN  
Institute of Catalysis, Siberian Branch Academy of  
Sciences USSR, Akademgorodok in Novosibirsk

IKhF

Institut khimicheskoy fiziki AN SSSR  
Institute of Physics of Chemistry, Academy of Sciences  
USSR, Chernogolovka

IKhS

Institut khimii silikatov im Grebanshchikova AN SSSR  
Institute of Silicate Chemistry imeni Grebanshchikov,  
Academy of Sciences USSR, Leningrad

IMET

Institut metallurgii im Baykova  
Institute of Metallurgy imeni Baykov, Moscow

IMI

Izhevskiy mekhanicheskiy institut  
Izhevsk Mechanical Engineering Institute

INKh

Institut neorganicheskoy khimii SOAN  
Institute of Inorganic Chemistry, Siberian Branch  
Academy of Sciences USSR

IOA

Institut optiki atmosfery SOAN  
Institute of Atmospheric Optics, Siberian Branch  
Academy of Sciences USSR

IOAN

Institut okeanologii AN SSSR  
Institute of Oceanography, Academy of Sciences  
USSR, Moscow

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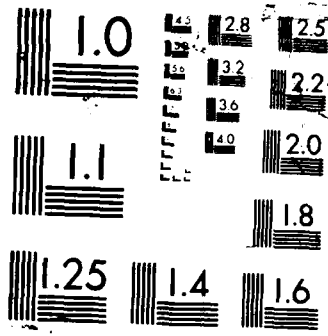
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IOF  
 Institut obshchey fiziki AN SSSR  
 Institute of General Physics, Academy of Sciences  
 USSR, Moscow

IOKh  
 Institut organicheskoy khimii AN SSSR  
 Institute of Organic Chemistry, Academy of Sciences  
 USSR, Moscow

IPANUK  
 Institut poluprovodnikov AN UkrSSR  
 Institute of Semiconductors, Academy of Sciences  
 Ukrainian SSR, Kiev

IPF  
 Institut prikladnoy fiziki AN SSSR  
 Institute of Applied Physics, Academy of Sciences  
 USSR, Gor'kiy

IPFANM  
 Institut prikladnoy fiziki AN MSSR  
 Institute of Applied Physics, Academy of Sciences  
 Moldavian SSR, Kishinev

IPMe  
 Institut problem mekhaniki AN SSSR  
 Institute of Problems of Mechanics, Academy of Sciences  
 USSR, Moscow

IRE  
 Institut radiotekhniki i elektroniki AN SSSR  
 Institute of Radioengineering and Electronics, Academy  
 of Sciences USSR, Moscow

IRFEANArm  
 Institut radiofiziki i elektroniki AN ArmSSR  
 Institute of Radiophysics and Electronics, Academy of  
 Sciences Armenian SSR, Ashtarak

IRFEANUK  
 Institut radiofiziki i elektroniki AN UkrSSR  
 Institute of Radiophysics and Electronics, Academy of  
 Sciences Ukrainian SSR

ISAN  
 Institut spektroskopii AN SSSR  
 Institute of Spectroscopy, Academy of Sciences USSR

ISMSANGruz  
 Institut stroitel'noy mekhaniki i seysmostoykosti AN Gruz SSR  
 Institute of Structural Mechanics and Seismic Stability,  
 Academy of Sciences Georgian SSR

ITEF  
 Institut teoreticheskoy i eksperimental'noy fiziki  
 Institute of Theoretical and Experimental Physics, Moscow

ITF  
 Institut teplofiziki SOAN  
 Institute of Thermophysics, Siberian Branch Academy of  
 Sciences USSR, Novosibirsk

**ITPM**

Institut teoreticheskoy i prikladnoy mekhaniki SOAN  
Institute of Theoretical and Applied Mechanics, Siberian  
Branch Academy of Sciences USSR, Novosibirsk

**IVTAN**

Institut vysokikh temperatur AN SSSR  
Institute of High Temperatures, Academy of Sciences USSR

**IYaFANUz**

Institut yadernoy fiziki AN UzSSR  
Institute of Nuclear Physics, Academy of Sciences  
Uzbek SSR, Ulugbek

**IYaFSOAN**

Institut yadernoy fiziki SOAN  
Institute of Nuclear Physics, Siberian Branch Academy of  
Sciences USSR, Novosibirsk

**IYaIAN**

Institut yadernykh issledovaniy AN SSSR  
Institute of Nuclear Research, Academy of Sciences  
USSR, Moscow

**KaGU**

Kazanskiy gos universitet  
Kazan' State University

**KAI**

Kazanskiy aviatsionnyy institut  
Kazan' Aviation Institute

**KaPI**

Kaunasskiy politekhnicheskiy institut  
Kaunass Polytechnic Institute

**KazFTI**

Kazanskiy fiziko-tekhnicheskiy institut AN SSSR  
Kazan' Physicotechnical Institute, Academy of  
Sciences USSR

**KazNIIMM**

NII matematiki i mekhaniki Kazanskogo gos universiteta  
Scientific Research Institute of Mathematics and  
Mechanics at Kazan' State University

**KazPI**

Kazakhskiy politekhnicheskiy institut  
Kazakh Polytechnic Institute

**KGU**

Kiyevskiy gos universitet  
Kiev State University

**KhAI**

Khar'kovskiy aviatsionnyy institut  
Khar'kov Aviation Institute

**KhGU**

Khar'kovskiy gos universitet  
Khar'kov State University

**KiGU**

Kishinveskiy gos universitet  
Kishinev State University

RIIGA

Kiyevskiy institut inzhenerov grazhdanskoy aviatsii  
Kiev Institute of Civil Aviation Engineers

KPIA

Kiyevskiy politekhnicheskiy institut  
Kiev Polytechnic Institute

KTILP

Kiyevskiy tekhnologicheskiy institut legkoy  
promyshlennosti  
Kiev Technological Institute of Light Industry

KVTU

Kiyevskoye vyssheye tankovoye uchilishche  
Kiev Higher Tank College

LETI

Leningradskiy elektrotekhnicheskiy institut  
Leningrad Electric Engineering Institute

LGPI

Leningradskiy gos pedagogicheskiy institut  
Leningrad State Pedagogical Institute

LGU

Leningradskiy gos universitet  
Leningrad State University

LISI

Leningradskiy inzhenerno-stroitel'nyy institut  
Leningrad Civil Engineering Institute

LITMO

Leningradskiy institut tochnoy mekhaniki i optiki  
Leningrad Institute of Precision Mechanics and Optics

LIYaF

Leningradskiy institut yadernoy fiziki AN SSSR  
Leningrad Institute of Nuclear Physics, Academy of  
Sciences USSR

LPI

Leningradskiy politekhnicheskiy institut  
Leningrad Polytechnic Institute

MEI

Moskovskiy energeticheskiy institut  
Moscow Power Engineering Institute

MFTI

Moskovskiy fiziko-tekhnicheskiy institut  
Moscow Physicotechnical Institute

MGPI

Moskovskiy gos pedagogicheskiy institut  
Moscow State Pedagogical Institute

MGU

Moskovskiy gos universitet  
Moscow State University

MIEM

Moskovskiy institut elektronnoy mashinostroyeniya  
Moscow Institute of Electronic Machinery

MIET

Moskovskiy institut elektronnoy tekhniki  
Moscow Institute of Electronic Engineering

**MIFI**  
 Moskovskiy inzhenerno-fizicheskiy institut  
 Moscow Engineering Physics Institute

**MIIGA**  
 Moskovskiy institut inzhenerov grazhdanskoy aviatsii  
 Moscow Institute of Civil Aviation Engineers

**MIIGAik**  
 Moskovskiy institut inzhenerov geodezii,  
 aerofotos"yemki i kartografii  
 Moscow Institute of Engineers of Geodesy,  
 Aerial Photography and Cartography

**MITKhT**  
 Moskovskiy institut tonkoy khimicheskoy tekhnologii  
 imeni Lomonosova  
 Moscow Institute of Fine Chemical Technology  
 imeni Lomonosov

**MMI**  
 Mogilevskiy mashinostroitel'nyy institut  
 Mogilevsk Machine Building Institute

**MVTU**  
 Moskovskoye vyssheye tekhnicheskoye uchilishche im  
 Baumana  
 Moscow Higher Technical College imeni Bauman

**NGU**  
 Novosibirskiy gos universitet  
 Novosibirsk State University

**NIFKHi**  
 NI fiziko-khimicheskoy institut im Karpova  
 Scientific Research Institute of Physicochemistry  
 imeni Karpov

**NIIFL**  
 NII fiziki pri Leningradskom gos universitete  
 Scientific Research Institute of Physics at Leningrad  
 State University

**NIIFRGU**  
 NII fiziki Rostovskiy gos universiteta  
 Scientific Research Institute of Physics of  
 Rostov State University

**NIIMF**  
 NII mekhaniki i fiziki Saratovskogo GU  
 Scientific Research Institute of Mechanics and  
 Physics of Saratov State University

**NIIP**  
 NII priborostroyeniya  
 Scientific Research Institute of Instrument  
 Manufacture, Moscow

**NIIZhT**  
 Novosibirskiy institut inzhenerov zheleznodorozhnogo  
 transporta  
 Novosibirsk Institute of Railroad Transport Engineers



NIKFI

NI kinofotoinstitut  
Scientific Research Institute of Motion Pictures and  
Photography, Moscow

NITsTLAN

NI tsentr po tekhnologicheskim lazeram AN SSSR  
Scientific Research Center for Industrial Lasers,  
Academy of Sciences USSR

NSFPRI

Nauchnyy sovet po probleme "Fotograficheskiye protsessy  
registratsii informatsii" AN SSSR  
Scientific Council on Photographic Processes in  
Information Recording, Academy of Sciences USSR

OFTNM

Otdeleniye fizikokhimii i tekhnologii neorganicheskikh  
materialov AN SSSR  
Department of Physical Chemistry and Technology of  
Inorganic Materials, Academy of Sciences USSR

OIYaI

Ob'yedinennyy institut yadernykh issledovaniy  
Joint Institute of Nuclear Research, Dubna

OTANUZ

Otdel teplofiziki AN UzSSR  
Department of Thermophysics, Academy of Sciences  
Uzbek SSR

RGU

Rostovskiy-na-Donu gos universitet  
Rostov on Don State University

RMI

Rizhskiy meditsinskiy institut  
Riga Medical Institute

SimGU

Simferopol'skiy gos universitet  
Simferopol State University

SKBIRE

Spetsial'noye konstruktorskoye byuro Instituta  
radiotekhniki i elektroniki AN SSSR  
Special Design Bureau of the Institute of  
Radioengineering and Electronics, Academy of  
Sciences USSR

SKTBOPIFANB

Spetsial'noye konstruktorsko-tekhnologicheskoye byuro  
s opytnym proizvodstvom Instituta fiziki AN BSSR  
Special Design and Technological Bureau with Trial  
Production of the Institute of Physics, Academy of  
Sciences Belorussian SSR

SNIIE

Sibirskiy NII energetiki  
Siberian Scientific Research Institute of  
Power Engineering, Novosibirsk

**SNIIM**  
 Sibirskiy gos NII metrologii  
 Siberian State Scientific Research Institute of  
 Metrology, Novosibirsk

**SykGU**  
 Syktyvkarskiy gos universitet  
 Syktyvkar State University

**TashGU**  
 Tashkentskiy gos universitet  
 Tashkent State University

**ToPI**  
 Tomskiy politekhnicheskii institut  
 Tomsk Polytechnic Institute

**TsNIIatominform**  
 TsNII informatsii i tekhniko-ekonomicheskikh  
 issledovaniy po atomnoy nauke i tekhnike  
 Central Scientific Research Institute of Information  
 and Technical Economic Studies on Atomic Science  
 and Technology, Moscow

**TsNIIITEIpriboro**  
 TsNII informatsii i tekhniko-ekonomicheskikh  
 issledovaniy priborostroyeniya, sredstv  
 avtomatizatsii i sistem upravleniya  
 Central Scientific Research Institute of  
 Information and Technical Economic Studies on  
 Instrument Manufacture, Means of Automation,  
 and Control Systems, Moscow

**TyumII**  
 Tyumenskiy industrial'nyy institut  
 Tyumen Industrial Institut

**UDN**  
 Universitet druzhby narodov im Lumumby  
 University of friendship Among Peoples  
 imeni Lumumba, Moscow

**UkrNIINTI**  
 Ukrainskiy NII nauchno-tekhnicheskoy informatsii i  
 tekhniko-ekonomicheskikh issledovaniy Gosplana  
 UkrSSR  
 Ukrainian Scientific Research Institute of Scientific  
 and Technical Information and of Technical Economic  
 Studies for the State Plan of the Ukrainian SSR, Kiev

**UzNIINTI**  
 Uzbekskiy NII nauchno-tekhnicheskoy informatsii i  
 tekhniko-ekonomicheskikh issledovaniy Gosplana UzSSR  
 Uzbek Scientific Research Institute of Scientific and  
 Technical Information and of Technical Economic  
 Studies for the State Plan of the Uzbek SSR, Tashkent

**VGU**  
 Voronezhskiy gos universitet  
 Voronezh State University

**VilGU**  
 Vil'nyusskiy gos universitet  
 Vilnius State University

Vil'nISI  
 Vil'nysskiy inzhenerno-stroitel'nyy institut  
 Vilnius Civil Engineering Institute  
 VINITI  
 Vsesoyuznyy institut nauchnoy i tekhnicheskoy  
 informatsii  
 All-Union Institute of Scientific and Technical  
 Information, Moscow  
 VNIFTRI  
 VNII fiziko-tekhnicheskikh i radiotekhnicheskikh  
 izmereniy  
 All-Union Scientific Research Institute of Physico-  
 technical and Radiotechnical Measurements, Moscow  
 VNIFTRIKh  
 Khabarovskiy filial VNII fiziko-tekhnicheskikh i  
 radiotekhnicheskikh izmereniy  
 Khabarovsk Branch of the All-Union Scientific  
 Research Institute of Physicotechnical and  
 Radiotechnical Measurements  
 VNIITArm  
 VNI proyektno-konstruktorskiy i tekhnologicheskoy  
 institut istochnikov toka. Armyanskoye otdeleniye  
 All-Union Scientific Research, Planning, Design and  
 Technological Institute of Current Sources.  
 Armenian Branch  
 VNIIMono  
 VNII monokristallov, stsintillyatsionnykh materialov  
 i osobo chistyykh khimicheskikh veshchestv  
 All-Union Scientific Research Institute of Single  
 Crystals, Scintillation Materials and Extra Pure  
 Chemical Substances, Khar'kov  
 VNIIOFI  
 VNII optiko-fizicheskikh izmereniy  
 All-Union Scientific Research Institute of  
 Optophysical Measurements, Moscow  
 VNITsISPIV  
 VNI tsentr po izucheniyu svoystv poverkhnosti i vakuuma  
 All-Union Scientific Research Center for Studying the  
 Properties of Surfaces and Vacuums, Moscow  
 VTsSOAN  
 Vychislitel'nyy tsentr SOAN  
 Computer Center, Siberian Branch Academy of Sciences  
 USSR  
 VZMI  
 Vsesoyuznyy zaochnyy mashinostroitel'nyy institut  
 All-Union Correspondence Institute of Mechanical  
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 YeGU  
 Yerevanskiy gos universitet  
 Yerevan State University

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